## **MEMORANDUM**

TO: Vermont Mental Health Performance Indicator Project

Advisory Groups and Interested Parties

FROM: John Pandiani

Lucille Schacht

DATE: December 31, 1998

RE: After Children's Services: Rates of Incarceration

The attached graphs and table present basic information on the rates of incarceration after children's services for boys who were served by Children's Services programs in Vermont when they were 17 years of age. The graphs and table describe rates of incarceration during a period of three years after the base year for three cohorts of adolescent boys. For purposes of this analysis, incarceration is defined by any period of time in a locked facility of the Vermont Department of Corrections.

As you will see, there is substantial variation among Vermont's regional Children's Services Program in rates of incarceration subsequent to treatment. Incarceration rates for Washington and Addison counties are significantly higher than most other regions, while the incarceration rate for Franklin/Grand Isle is significantly lower than most other regions.<sup>1</sup> None of the other seven regions are significantly different from each other. This lack of statistical significance is due in part to the relatively large confidence intervals, which are due in part to the relatively small numbers of 17 year old boys who are served by these programs.

The "elevated risk" on the bottom graph is a comparison of the incarceration rate to the incarceration rate for other young men in the same age cohorts. Young men served by the Counseling Service of Addison County, for instance, were 5.8 times as likely to be incarcerated as young men in Vermont who had not been served by children's mental health services programs when they were 17 years old.

It is important to keep in mind that the observed differences may be due to differences in the caseload of young men who were served by these programs or differences in the communities that are being served. Programs that serve a more "difficult" population, may be expected to have less positive outcomes, for instance. Also, there may be differences in the rates at which young men are incarcerated in different regions in the state that would account for some of the variation observed. We will appreciate your suggestions regarding other factors that should be taken into account in interpreting these results.

If you have any questions of suggestions regarding this potential measure of the performance of children's services programs, please, e-mail to <a href="mailto:pip@ddmhs.state.vt.us">pip@ddmhs.state.vt.us</a>, or give one of us a call (802-241-2638 for John, or ...2659 for Lucille).

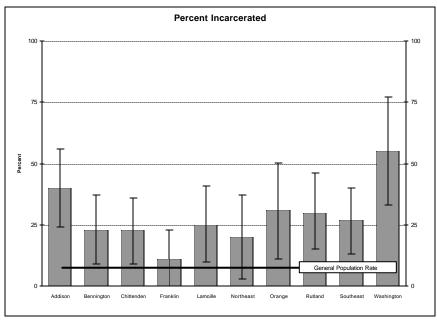
<sup>1</sup> A note on the interpretation of confidence intervals:

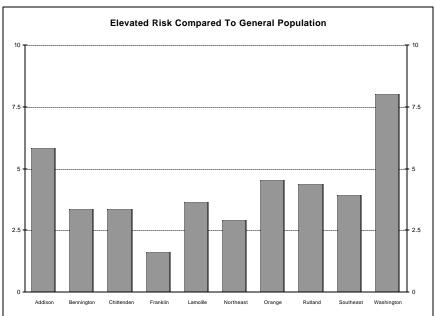
The vertical line on each of the columns on the top graph is known as an error bar. In this case, it delineates the 95% confidence interval (CI) that surrounds each incarceration rate. Similar confidence intervals surround most statistical measures, but are rarely shown in presentations for general audiences. We have included the error bars here to remind ourselves and our readers that not all differences are significant in either a substantively or a statistical sense.

In order to determine if two incarceration rates are different, a reader should compare the end of the confidence interval for one region's incarceration rate to the incarceration rate of another region. For instance, the low end of the confidence interval for Addison (24%) is greater than the estimated incarceration rate for Bennington (23%). This means that the difference is statistically significant; a difference of this magnitude would occur by chance less than one time in 20.

## RATE OF INCARCERATION AFTER CHILDREN'S SERVICES

17 Year Old Boys Served During 1993 - 1995 Incarcerated At Least Once During the Next 3 Years





|                         | Statewide | Addison | Bennington | Chittenden | Franklin | Lamoille | Northeast | Orange  | Rutland | Southeast | Washington |  |
|-------------------------|-----------|---------|------------|------------|----------|----------|-----------|---------|---------|-----------|------------|--|
| Number<br>Served        | 476       | 64      | 48         | 31         | 45       | 37       | 52        | 30      | 43      | 88        | 38         |  |
| Percent<br>Incarcerated | 28%       | 40%     | 23%        | 23%        | 11%      | 25%      | 20%       | 31%     | 30%     | 27%       | 55%        |  |
| 95% CI                  | 23%-33%   | 24%-56% | 9%-37%     | 9%-36%     | -1%-23%  | 10%-41%  | 3%-37%    | 11%-50% | 15%-46% | 13%-40%   | 33%-77%    |  |
| Elevated Risl           | 4.09      | 5.84    | 3.36       | 3.36       | 1.61     | 3.65     | 2.92      | 4.53    | 4.38    | 3.94      | 8.03       |  |

Information is derived from records maintained by the Vermont Department of Corrections and Quarterly Service Reports (QSR) submitted by Vermont's community service providers. The State of Vermont does not have a unique client identifier across service sectors. In order to derive unduplicated estimates of the number of people served, probabilistic estimation has been used to provide both person counts and 95% confidence intervals. The bars represent the 95% confidence intervals. Elevated risk is obtained by dividing the percent of CMHC clients incarcerated by the statewide incarceration rate for young men in the same age cohorts (6.85%).

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